

IN THE SPECIFICATION:

Please insert the following new paragraph after the Title and before the first paragraph on page 1:

-- This application is the U.S. National Phase under 35 U.S.C. § 371 of International Application No. PCT/JP05/017070, filed September 15, 2005, which in turn claims the benefit of Japanese Application No. 2004-303262, filed October 18, 2004, the disclosures of which Applications are incorporated by reference herein in their entirety. –

Please replace the paragraph on page 12, line 17 with the following:

31 Common ~~signal~~ output line

Please replace the paragraph beginning on page 14, line 15 and ending on page 15, line 1 with the following:

As shown in FIG. 1, in the infrared sensor of the present embodiment, a first terminal of a series capacitor element 1 is electrically connected to first terminals of a reference capacitor element 2 and an infrared-detecting capacitor element 3 via a reference capacitor element control switch 5 and an infrared-detecting capacitor element control switch 6, each being a MOS transistor, thus forming an output node 15. The capacitance value of the series capacitor element 1 and that of the reference capacitor element 2 are set so as to be substantially the same as the capacitance value of the infrared-detecting capacitor element 3 when there is no incident infrared light. Thus, these capacitance values are equal to one another within the range of their tolerance occurring when manufactured by a known manufacturing method.

Please replace the paragraph beginning on page 15, line 13 and ending on page 15, line 18 with the following:

First, at time T1, the voltage of the reference capacitor element control line 10 is brought to a high ("H") level and the reference capacitor element control switch 5 is turned ON, thereby connecting the reference capacitor element 2 to the series capacitor element 1. Then, at time T2, the voltage of the bias control line 9 is brought to the "H" level, and the bias control switch 4 is turned ON, thereby bringing the voltage of the output node 15 to a bias voltage VB.

Please replace the paragraph beginning on page 16, line 6 and ending on page 16, line 15 with the following:

Then, at time T4, the voltage of the ~~signal~~ infrared-detecting capacitor element control line 11 is brought to the "H" level and the infrared-detecting capacitor element control switch 6 is turned ON, thereby connecting the infrared-detecting capacitor element 3 to the series capacitor element 1. Then, at time T5, the voltage of the bias control line 9 is brought to the "H" level, thereby bringing the voltage of the output node 15 back to a level equal to the bias voltage VB. Then, at time T5, the voltage of the power supply line 8 is raised from V_L to V_H . Thus, the voltage difference ($V_H - V_L$) between V_H and V_L is distributed according to the capacitance ratio between the series capacitor element 1 and the infrared-detecting capacitor element 3 and added to the voltage of the output node 15. The voltage of the output node 15 in this state is defined as a detection potential V_{sig} .

Please replace the paragraph beginning on page 18, line 10 and ending on page 18, line 17 with the following:

The output nodes 15 of the infrared sensor 20 and the infrared sensor 22 are commonly connected to a first differential circuit section 29, and the output nodes 15 of the infrared sensor 21 and the infrared sensor 23 are commonly connected to a second differential circuit section 30. The first differential circuit section 29 and the second differential circuit section 30 are connected to a horizontal scanning section 32 via a first horizontal scanning line 35 and a second

horizontal scanning line 36, respectively. The outputs of the first differential circuit section 29 and the second differential circuit section 30 are connected to a common ~~signal~~ output line 31.

Please replace the paragraph beginning on page 19, line 2 and ending on page 19, line 7 with the following:

Then, the voltage of the bias control line 9 is brought to the "L" level, after which the voltage of the power supply line 8 is raised from V_L to V_H at time T3. Thus, a voltage of $1/2$ of $(V_H - V_L)$ is added to each of the output nodes 15 of the infrared sensor 20 and the infrared sensor 21 connected to the power supply line 8. This voltage is stored as the reference potential V_{ref} in each of the first differential circuit section 29 and the second differential circuit section 30.

Please replace the paragraph beginning on page 19, line 15 and ending on page 19, line 20 with the following:

Then, the voltage of the bias control line 9 is brought to the "L" level, after which the voltage of the power supply line 8 is raised from V_L to V_H . Thus, the voltages of the output nodes 15 of the infrared sensor 20 and the infrared sensor 21 connected to the power supply line 8 are each a voltage according to the intensity of light incident on the infrared-detecting capacitor element. This voltage is stored as the detection potential V_{sig} in each of the first differential circuit section 29 and the second differential circuit section 30.

Please replace the paragraph beginning on page 19, line 21 and ending on page 20, line 5 with the following:

Then, the voltage of the power supply line 8 is brought back to V_L , and the voltage of the reference capacitor element control line 10 is brought to the "L" level. Then, a driving pulse is applied to the first horizontal scanning line 35, thereby making the first differential circuit section 29 output, as a signal output of the infrared sensor 20, the potential difference V_{dif-20} between the reference potential V_{ref} and the detection potential V_{sig} to the common output line

31. Then, a driving pulse is applied to the second horizontal scanning line 36, thereby making the second differential circuit section 30 output, as a signal output of the infrared sensor 21, the potential difference $V_{\text{dif-21}}$ between the reference potential V_{ref} and the detection potential V_{sig} to the common output line 31. Then, the voltage of the first vertical scanning line 33 is brought to the "L" level, thereby completing the reading operation for the first row.

Please replace the paragraph beginning on page 27, line 5 and ending on page 27, line 12 with the following:

FIG. 16 shows timing with which to operate the charge storage circuit section provided in the infrared sensor array of the present embodiment. First, the operation from time T0 to time T7 shown in FIG. 4 is performed, after which a driving pulse is applied to the first horizontal scanning line 35, thereby making the first differential circuit section 29 output a signal $V_{\text{dif-20}}$ from the infrared sensor 20 for the first time. A pulse is applied to the storage control line 111A at the time of the signal output from the first differential circuit section 29, thereby storing, as a charge, the signal from the first differential circuit section 29 in the charge storage capacitor element 102A.

Please replace the paragraph beginning on page 27, line 13 and ending on page 27, line 19 with the following:

Then, the operation from time T0 to time T7 is performed again, thereby making the first differential circuit section 29 output the signal $V_{\text{dif-20}}$ from the infrared sensor 20 for the second time. A pulse is applied to the storage control line 111B at the time of the signal output from the first differential circuit section 29, thereby storing a charge in the charge storage capacitor element 102B. A similar scanning operation is further repeated, whereby the signal $V_{\text{dif-20}}$ is output from the infrared sensor 20 for the third time and is stored, as a charge, in the charge storage capacitor element 102C.